

Tuesday, September 12, 2017 1:35:16 PM

All amounts are calculated in domestic currency.

All Vendors PO ID PO37671 Receipt Dates from 9/12/2017 to 9/12/2017 All Line Item Types
 All Item ID/GL/WOs All Rec. Employees All Currencies
 Grouped by Vendor ID

[illegible]



DELIVERY - CLIENT

CO00049626

ACIER OUELLETTE INC.

935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N°

CLI0001056

Date

2017/09/06

Delivery date

2017/09/06 12

Your order N°

PO37671

Shipped to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Processed by

Frederic Leboeuf

Salesman

Carrier

OUELLETTE VALLEYFIELD

Credit Terme

Net 30 Days

Instruction F-M

Delivery Route 5

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Page

1

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only		
				CMD	EXP	B/O	IN	I	S C
1 SHEET SS 18G SS304-2B (4 X 8) FESS-18G483042B 3425 2 X 4' X 8' HEAT:	134.40	64.00	PI2_\$CLB		2x				

Conditions :

All sold and delivered materials remain the property of "Acier Ouellette Inc." until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Total Weight (Lbs) : 134.40

NIR : R-109516-6

Prepared By :

Verified By :

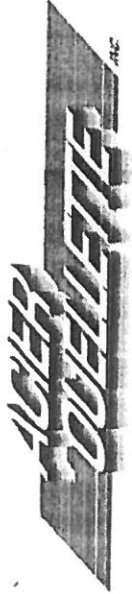
Delivered By :

Time

Customer's Signature

Date

Total (\$CAD)



DELIVERY - CLIENT

CO00049626

ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N° CL10001056

Date 2017/09/06

Delivery date 2017/09/08

Your order N° PO37671

Processed by Frederic Leboeuf

Salesman

Carrier OUELLETTE VALLEYFIELD

Credit Terme Net 30 Days

Page 1

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only		
				CMD	EXP	B/O	IN	I	S C
1 ROUND SS 3/4 303 RANDOM RSS-34303-V 5761 1 X 12' R/L HEAT: W4B3	18.02	12.00	PI_\$CLB						
2 ROUND SS 3/8 304 (12R) RSS-38-12 5763 1 X 12' R/L HEAT: CH-3840	4.51	12.00	PI_\$CLB						
3 SHEET SS 18G SS304-2B (4 X 8) FESS-18G483042B 3425 2 X 4' X 8' DAS 5 9-89 HEAT: 0L4V	134.40	64.00	PI2_\$CLB						

NIR : R-109516-6

Next Page...



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ACIER OUELLETTE INC.

935, Boul. du Hâvre
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Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N° CLI0001056

Date 2017/09/06

Delivery date 2017/09/08

Your order N° PO37671

Processed by Frédéric Leboeuf

Salesman

Carrier OUELLETTE VALLEYFIELD

Credit Terme Net 30 Days

Page 2

Billed to

DART AEROSPACE LTD

1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only			
				CMD	EXP	B/O	IN	I	S	C
4 SHEET SS 20G SS304-2B (4 X 8) FESS-20G483042B 3430 2 X 4' X 8' HEAT: 160629D02	100.48	64.00	PI2_\$CLB							
5 ROUND CR 5/8 1018 (20R) RCR-58-20 5350 1 x 20' r/l HEAT: 139624	20.80	20.00	PI_\$CLB							
6 ROUND CR 1/2 1018 (20R) RCR-12-20 5266 1 x 20' r/l	13.36	20.00	PI_\$CLB							

NIR : R-109516-6

Next Page...



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Customer N° CLI0001056

Date 2017/09/06

Delivery date 2017/09/08

Your order N° PO37671

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Salesman

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Page 3

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
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Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

Product Description	Weight	Qty	U/M	PCS NB		Internal Use Only			
				CMD	EXP	B/O	IN	I	S C
HEAT: 916205 7 FLAT CR 1/4 X 1 1/2 1018 (12R) FCR-14112-12 2731 1 x 12' r/l	15.30	12.00	PI_\$CLB						
HEAT: W26482 8 ROUND 4140 HEAT TREAT 3/4 (20R) R4140-34H-20 4948	4.51	3.00	PI_\$CLB						
HEAT: M52573 COUPE A LA SCIE SCIE 1 1 X 3'		1.00	UN						

NIR : R-109516-6

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Customer N° CLI0001056

Date 2017/09/06

Delivery date 2017/09/08

Your order N° PO37671

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Salesman

Carrier OUELLETTE VALLEYFIELD

Credit Terme Net 30 Days

Page 4

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only		
				CMD	EXP	B/O	IN	I	S C OUT
9 ROUND 4140 HEAT TREAT 2 RANDOM R4140-2H-V 4937 HEAT: M56776 COUPE A LA SCIE SCIE 1 1 X 3'	32.04	3.00	PL_SCLB						
10 FLAT ALU 3/8 X 1 6061-T6 (20) FAL-381-20 2610 1 X 20' HEAT: 3B4191	9.00	20.00	PL_SCLB						

NIR : R-109516-6

Next Page...



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Customer N° CLI0001056

Date 2017/09/06

Delivery date 2017/09/08

Your order N° PO37671

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Salesman

Carrier OUELLETTE VALLEYFIELD

Credit Terme Net 30 Days

Page 5

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only		
				CMD	EXP	B/O	IN	I	S C OUT
11 FLAT ALU 1/2 X 1 1/2 6061-T6 (20) FAL-12112-20 2465 1 X 20' HEAT: 66789	18.00	20.00	PL_\$CLB						
12 FLAT ALU 1 X 5 6061-T6 (12) FAL-15-12 2533 1 X 12' HEAT: 201708529	70.49	12.00	PL_\$CLB						
13 FLAT ALU 1 1/4 X 3 6061-T6 (12) FAL-1143-12 2457 1 X 12'	52.87	12.00	PL_\$CLB						

NIR : R-109516-6

Next Page...



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Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N° CLI0001056

Date 2017/09/06

Delivery date 2017/09/08

Your order N° P037671

Processed by Frederic Leboeuf

Salesman

Carrier OUELLETTE VALLEYFIELD

Credit Terme Net 30 Days

Page 6

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

Product Description	Weight	Qty	U/M	PCS NB		Internal Use Only			
				CMD	EXP	B/O	IN	I	S C OUT
HEAT: ES04036 14 ROUND ALU 5 6061-T6 (12) RAL-5-12 5164	69.12	3.00	PI_\$CLB						
HEAT: Z00020290 COUPE A LA SCIE SCIE 1 1 X 3'		1.00	UN						
15 ROUND ALU 2 1/4 6061-T6 (20) RAL-214-20 5144 HEAT: 68252	9.34	2.00	PI_\$CLB						

NIR : R-109516-6

Next Page...



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Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Customer N° CLI0001056

Date 2017/09/06

Delivery date 2017/09/08

Your order N° PO37671

Processed by Frederic Leboeuf

Salesman

Carrier OUELLETTE VALLEYFIELD

Credit Terme Net 30 Days

Page 7

Shipped to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only		
				CMD	EXP	B/O	IN	I	S C
COUPE A LA SCIE SCIE 1			1.00 UN						
16 ROUND SS 1 1/2 303 RANDOM NS RSS-112303-V 8859 1 x 12' R/L AC9030 - TH - 2017/09/07 HEAT: 333B	72.11	12.00	PL \$CLB						
17 FLAT CR 2 1/2 X 6 1018 RANDOM NS FCR-2126-V 8860 1 X 3' AC9031 - GR - 2017/09/07 HEAT: 207H175	153.00	3.00	PI						

NIR : R-109516-6

Next Page...

45760

R2-34-202

47305

#1



METALLURGICAL TEST REPORT

North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

Certificate: 107119 5

Customer: 007035 510

Date: 10/22/2015 Page: 1

Steel: 303

Finish: CD

Corrosion:

Your Order: 770967

NAS Order: PN 0056401 02

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
ASTM A582/12 EN 10204 3.1, ASTM A484/11
AMS 5640U TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN

REMARKS:

COMPLIES W/REQUIREMENTS OF DPAF 252.225-7009 EU DIRECTIVE
2011/65/EU, ROHS, EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BK4444 0		.7500		1.151	144.00	2	1	71469845

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/08

HEAT	CM	C %	CO %	CR %	CU %	MO %	NI %	P %
W4B3	US	.0473	.1185	17.2850	.3305	1.7960	.0532	6.3575
								.0310

MECHANICAL PROPERTIES

Product Id	1 d o i c t	HB	.2YS KSI	UTS KSI	RA %	Elong % 4D
BK4444 0	R L	222.0	82.69	102.54	34.29	23.26

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

ABHJEET BHAVE

ABHJEET BHAVE - 10/22/2015

#5763

RSS-38-12

48194

P06840



CHANDAN STEEL LIMITED (GOVT. OF INDIA RECOGNISED EXPORT HOUSE) ISO 9001 : 2008 CERTIFICATE No. 04 189 011001

ADM. OFFICE: 104, SURESH NAGAR, 10 & 11, PATEL MARG, NEW DELHI 110002, INDIA

Tel: 91-22-46280000 Fax: 91-22-46280001/34

Website: www.chandansteel.net

Email: info@chandansteel.net

L/c. No.:

L/c. Date:

WORKS: Plot No. 38, G. I. D. C., Unbhargava

Dist. Valmiki, Gujarat - 386 171

Tel: 91-260-388 9999 Fax: 91-260 388 9872

E-mail: exports@chandansteel.net

FORM QC 09A / 02 / 10.12.2012

MILL TEST / INSPECTION CERTIFICATE 3.1 ACCORDING TO EN 10204 : 2005

PRODUCT DESCRIPTION STAINLESS STEEL ROUND BARS				Test Certificate No. : EXP/00837 - 13/2016-2017 Date of Issue : 08.07.2016 P. O. No. : P004712 SC No. & Date : 15-16/00924, Dt. 13.04.2016 Invoice No. & Date : EXP/00837/2016-17 Dt. 08.07.2016							
				LENGTH Ordered : 12' - 12'6" Actual : 12' - 12'6" Net Wt. : 6458 LBS.							
Heat No.	Grade AISI/DIN 304/304L 1.4301/1.4307 UNS S30400/S30403	Size mm/inches 3/8"	Tolerance h9	Process Route Electric Melting, A.O.D. Refining, Continuous Casting.							
CHEMICAL COMPOSITION (Weight %)											
	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Co	N
Min.	-	-	-	-	-	18.00	-	8.00	-	-	-
Max.	0.080	1.00	2.00	0.045	0.030	20.00	1.00	10.50	1.00	-	0.1000
Results	0.019	0.42	1.71	0.040	0.020	18.21	0.32	8.05	0.41	0.10	0.0690
MECHANICAL PROPERTIES											
Specified Values	Test Method :- EN ISO 6892-1					Hardness EN ISO 6506-1 (BHN)	Test Method :- Charpy 'V' Notch Impact Tested (2mm) as per DIN EN ISO 148 - 1 Sample Size - Test Temp. :- 20 °C (Ioules)				
	Proof Strength N/mm ² /MPa		Tensile Strength N/mm ² /MPa (Rm)	Elongation after Fracture A %	Reduction of Area %						
	0.2% (Rp0.2)	1% (Rp1.0)									
Results	514	360	712	47	65	215-218	I	II	III	Avg.	
Remarks: 1. Cold drawn & Centreless Ground. 2. Solution annealed at 1050 °C. 3. PMI test done 100% & found Satisfactory. 4. Material is free from radio-active contamination. 5. Material is free from mercury contamination. 6. Inter-Granular Corrosion Test as per ASTM A262 - 15 (Pr.E) satisfactory. 7. No welding or weld repairs were performed on this material while in our possession. 8. Micro structure reveals- equiaxed grains of Austenite & free from carbide Precipitation. 9. Grain size - No. 7-8 of ASTM as per: H112-96. 10. The material Conforms to ASTM A276-15, ASTM A182/A182M-15, ASME SA 182/SA 182M-15, ASTM A479/A479M-15, ASME SA479/SA-479M-15, ASTM A193/A193M-12B B8 - CL1, ASME SA193/SA193M-13 B8 - CL1, ASTM A320/A320M-11 B8 CL1, ASME SA320/SA 320M-10 B8 CL1, AMS-QQ-S-7638 COND A, AMS - 5639H, AMS - 5647H, EN 10088-3 : 2014 & DIN EN 10272-2008 Specification. 11. Location of sample - Centre, Direction - Longitudinal, Test Temp - Room Temp., Shape of Test Piece - Round. 12. Marking details - Company Logo, Size, Grade & Heat No. 13. The material is manufactured /melt in Chandan Steel Mill and is of Indian Origin. BUNDLE NO.: 47 to 51 COLOUR: RED											

It is hereby certified that the above results are true and correct in every detail and are meeting the requirements of specification & purchase order.

B. S. RAUTELA
MANAGER - QUALITY ASSURANCE



#3425

FE-SS-1864830420

P0.3538 #3
474727

North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 253625 2

Customer: 007035 021

Date: 1/10/2017 Page: 1

Steel: 304/304L

Finish: 2B

Corrosion: ASTM A262/15; 180Bend-OK

Your Order: 788462

NAS Order: DE 0011167 01

PRODUCT DESCRIPTION:

STAINLESS STEEL COIL, C.R. ANNEALED & PICKLED. UNS 30400/30403
ASTM A240/15B, A480/15, A666/15, SA480/15, SA666/15
MANUFACTURED IN MALAYSIA

REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1; ROHS 1 & 2 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: EAF, ROD, & Cont. Casting
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001

Product Id	Supplier Id	Skid #	Thickness	Width	Weight	Length	Mark	Pieces	Commodity Code
110L4V	A00304 63A		.0450	48.0296	24.908	COIL	1	1	74261496

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

HEAT	Supplier#	CM	C %	CR %	MN %	N %	NI %	P %	S %	SI %
0L4V 192R	ES		.0200	18.2000	1.8200	.0800	8.0000	.0290	.0020	.3600

DAS
5
9-89

MECHANICAL PROPERTIES

Product Id	Supplier Id	Id of Cert	UTS KSI	20C .2% YS KSI	% ELONG %-2"	% Hard RB	Tail Hard
110L4V	A00304 63A	F T	95.72	48.59	48.00	85.00	86.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Ngr.

KRIS LARK

1/11/2017

YONGJIN

MILL TEST REPORT

DATE: 2016-7-31
Invoice No. SECAB26503TDS
CERTIFICATE NO.: PPCNQ6506TDS

MADE IN CHINA
PRODUCING MILL: YONGJIN
PO NUMBER: C16960

GOODS: STAINLESS STEEL COLD ROLLED COILS 2B FINISH, AS PER AISI 304 PRIME QUALITY,
SLITTING EDGE WITH PAPER INTERLEAVED.
TYPE: 304 SPEC: ASTM A240/480, ASME SA240/480

NO.	Surface	Heat No.	Coil No.	DIMENSIONS	Weight (MT)	Mechanical Properties				State
						T.S (N/mm ²)	Y.S (N/mm ²)	Elong %	Hardness	
✓ 1	2B	160612C11	YJJ16Z05996A	0.024 INCH X 48.00 INCH X COIL	9.648	671	270	58	159/161/162	P556015
✓ 2	2B	160625B01	YJJ16Z05945A	0.030 INCH X 48.00 INCH X COIL	9.241	690	279	56	167/167/168	P554953
✓ 3	2B	160629D02	YJJ16Z05961A	0.035 INCH X 48.00 INCH X COIL	7.010	690	280	55	167/168/169	P554953
✓ 4	2B	160629D02	YJJ16Z05961C	0.035 INCH X 48.00 INCH X COIL	7.084	690	280	55	167/168/169	P554954
✓ 5	2B	160629D02	YJJ16Z05961B	0.035 INCH X 48.00 INCH X COIL	6.915	690	280	55	167/168/169	P556016
TOTAL:					39.898					

CHEMICAL COMPOSITION %										
NO.	C	Si	Mn	P	S	Cr	Ni	N	Mo	Cu
1	0.036	0.43	1.16	0.026	0.004	18.15	8.06	0.050	0.024	0.08
2	0.044	0.39	1.06	0.024	0.002	18.34	8.01	0.051	0.004	0.02
3	0.044	0.59	1.17	0.026	0.003	18.19	8.04	0.046	0.004	0.03
4	0.044	0.59	1.17	0.026	0.003	18.19	8.04	0.046	0.004	0.03
5	0.044	0.59	1.17	0.026	0.003	18.19	8.04	0.046	0.004	0.03
REMARKS	We hereby certify that the material described herein has been manufactured and tested with satisfactory results in accordance with the requirements of the material specification.									
	Quality Dept. <i>Peter</i>									



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)
Tfno.: 946480211
Fax: 946480128
Email: calpradera@calibradospradera.es
www.calibradospradera.es

#5
TRA 1469 535
48493
3P

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 47704

ALBARAN 47704
Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) LTÉE
CUSTOMER

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

PRODUCTO SOLICITADO / PRODUCT ACCORDING ASTM A108

Nº PEDIDO Purchase Order	DESCRIPCIÓN Description	KGS.	TOLERANCIA TOLERANCE	OF	MEDIDA Measurement
PAR-47152	12L14 HEX. ESTIRADO 31,75 (1 1/4")	996	- 0,076	915907	31,75
PAR-47472	12L14 RED. ESTIRADO 50,80 (2")	1 034	- 0,076	916489	50,80
PAR-47851	12L14 RED. ESTIRADO 50,80 (2")	1 090	0,076	916489	50,80
PAR-47851	1018 RED. ESTIRADO 31,75 (1 1/4")	994	- 0,051	139211	31,75
MJP-47856	12L14 RED. ESTIRADO 25,40 (1")	3 000	- 0,051	139256	25,40
PAR-47786	1018 RED. ESTIRADO 30,16 (1 3/16")	1 090	0,051	139297	30,16
PAR-47786	12L14 RED. ESTIRADO 19,05 (3/4")	2 002	- 0,051	202433	19,05
MJP-47861	12L14 HEX. ESTIRADO 31,75 (1 1/4")	994	- 0,076	915907	31,75
OU-47812	1018 RED. ESTIRADO 9,53 (3/8")	1 040	- 0,051	139333	9,53
SM-47572	1018 RED. ESTIRADO 9,53 (3/8")	1 040	- 0,051	139477	9,53
SM-47572	1018 RED. ESTIRADO 31,75 (1 1/4")	1 988	- 0,051	139481	31,75
AQM-47672	1018 RED. ESTIRADO 31,75 (1 1/4")	1 990	- 0,051	139547	31,75
OU-47832	12L14 RED. ESTIRADO 19,05 (3/4")	1 998	- 0,051	202433	19,05
OU-47832	1018 RED. ESTIRADO 15,88 (5/8")	2 004	- 0,051	139624	15,88
OU-47822	1018 RED. ESTIRADO 31,75 (1 1/4")	996	- 0,051	139627	31,75
MJP-47896	1018 RED. ESTIRADO 15,88 (5/8")	1 010	- 0,051	139776	15,88

Composición química de la colada / Chemical Analysis of Heat

MEDIDA Measurement	OF	COLADA Cast Nr.	% C	% Cr	% Cu	% Mn	% Mo	% Ni	% P	% Ph	% S	% Si
31,75	0,00	915907	0,070	0,090	0,230	1,110	0,030	0,110	0,051	0,210	0,329	0,020
50,80	0,00	916489	0,060	0,000	0,000	1,120	0,000	0,000	0,043	0,220	0,318	0,010
50,80	0,00	916489	0,060	0,000	0,000	1,120	0,000	0,000	0,043	0,220	0,318	0,010
31,75	0,00	139211	0,165	0,000	0,000	0,758	0,000	0,000	0,016	0,000	0,021	0,220
25,40	0,00	139256	0,060	0,086	0,014	1,130	0,006	0,023	0,063	0,300	0,310	0,003
30,16	0,00	139297	0,165	0,000	0,000	0,758	0,000	0,000	0,016	0,000	0,021	0,220
19,05	0,00	202433	0,071	0,046	0,019	1,085	0,004	0,029	0,060	0,295	0,292	0,008
31,75	0,00	915907	0,070	0,090	0,230	1,110	0,030	0,110	0,051	0,210	0,329	0,020
9,53	0,00	139333	0,160	0,000	0,000	0,750	0,000	0,000	0,021	0,000	0,032	0,160
9,53	0,00	139477	0,160	0,000	0,000	0,750	0,000	0,000	0,021	0,000	0,032	0,160
31,75	0,00	139481	0,165	0,000	0,000	0,758	0,000	0,000	0,016	0,000	0,021	0,220
31,75	0,00	139547	0,165	0,000	0,000	0,758	0,000	0,000	0,016	0,000	0,021	0,220
19,05	0,00	202433	0,071	0,046	0,019	1,085	0,004	0,029	0,060	0,295	0,292	0,008
15,88	0,00	139624	0,160	0,000	0,000	0,650	0,000	0,000	0,021	0,000	0,023	0,142
31,75	0,00	139627	0,165	0,000	0,000	0,758	0,000	0,000	0,016	0,000	0,021	0,220
15,88	0,00	139776	0,160	0,000	0,000	0,650	0,000	0,000	0,021	0,000	0,023	0,142

Características mecánicas / Mechanical properties



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)
Tfno.: 946480211
Fax: 946480128
Email: calpradera@calibradospradera.es
www.calibradospradera.es

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 47704

ALBARAN 47704
Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) LTÉE
CUSTOMER

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

MEDIDA	OF	COLADA	Resistencia	Lím.elástico	Alargamiento	Dureza HB	Estricción %	
Measurement		Cast Nr.	Tens. strenght	Yield point	Elongation	Hardness		
			N/mm2	0,2% N/mm2	Lo=50 mm.	HB		
31,75		915907	39680 W	533,38	523,05	12,04	169,00	45,79
50,80		916489	41232 IS	515,66	509,28	16,20	178,00	53,91
50,80		916489	41232 IS	515,66	509,28	16,20	178,00	53,91
31,75		139211	41410 AG	558,02	536,07	36,40	159,00	57,29
25,40		139256	41300 AG	556,11	543,10	19,46	159,00	46,32
30,16		139297	41411 AG	551,06	525,36	37,06	165,00	59,43
19,05		202433	41406 AA	584,38	568,82	16,86	172,00	47,83
31,75		915907	39680 W	533,38	523,05	12,04	169,00	45,79
9,53		139333	41460 GM	735,60	691,90	12,70	216,00	59,96
9,53		139477	41460 GM	735,60	691,90	12,70	216,00	59,96
31,75		139481	41410 AG	558,02	536,07	36,40	159,00	57,29
31,75		139547	41410 AG	558,02	536,07	36,40	159,00	57,29
19,05		202313	41406 AA	584,38	568,82	16,86	172,00	47,83
15,88		139624	41508 G	602,29	574,24	20,18	176,00	60,19
31,75		139627	41410 AG	558,02	536,07	36,40	159,00	57,29
15,88		139776	41508 G	602,29	574,24	20,18	176,00	60,19

Calidad Superficial

DESCRIPCIÓN Description	OF	Clase EN 10277-1
12L14 HEX. ESTIRADO 31,75 (1 1/4")	915907	1
12L14 RED. ESTIRADO 50,80 (2")	916489	2
12L14 RED. ESTIRADO 50,80 (2")	916489	2
1018 RED. ESTIRADO 31,75 (1 1/4")	139211	3
12L14 RED. ESTIRADO 25,40 (1")	139256	3
1018 RED. ESTIRADO 30,16 (1 3/16")	139297	2
12L14 RED. ESTIRADO 19,05 (3/4")	202433	3
12L14 HEX. ESTIRADO 31,75 (1 1/4")	915907	1
1018 RED. ESTIRADO 9,53 (3/8")	139333	2
1018 RED. ESTIRADO 9,53 (3/8")	139477	2
1018 RED. ESTIRADO 31,75 (1 1/4")	139481	3
1018 RED. ESTIRADO 31,75 (1 1/4")	139547	3
12L14 RED. ESTIRADO 19,05 (3/4")	202313	3
1018 RED. ESTIRADO 15,88 (5/8")	139624	2
1018 RED. ESTIRADO 31,75 (1 1/4")	139627	3
1018 RED. ESTIRADO 15,88 (5/8")	139776	2



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)
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www.calibradospradera.es

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 47704

ALBARAN 47704 Delivery Note Nr.	CLIENTE LES ACIERS TRANSBEC (1997) LTÉE CUSTOMER
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Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norma :

Bright steel products. Technical delivery conditions.

Observaciones: BARRAS DE ACERO ESTRIADAS EN FRÍO SIN ALEAR

DEPARTAMENTO DE CALIDAD: Certifica que el mencionado producto cumple con las especificaciones del pedido.

QUALITY DEPARTMENT: Certify that the product fulfils the order specifications.

Fecha/Date: 08/06/2017

Firmado: Susana Fernández
Directora de Calidad



Sistema de
Gestión
ISO 9001:2008

WZL 001 0017
ID 110712024



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)
Tfno.: 946480211
Fax: 946480128
Email: calpradera@calibradospradera.es
www.calibradospradera.es

TRA 1242 #6.

5266

48011

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 46977

ALBARAN 46977
Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) LTÉE
CUSTOMER

Norma : EN 10277

Productos Calbrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

PRODUCTO SOLICITADO / PRODUCT ACCORDING ASTM A1008

Nº PEDIDO Purchase Order	DESCRIPCIÓN Description	KGS.	TOLERANCIA TOLERANCE	OF	MEDIDA Measurement
OU-47007	1018 CUA. ESTIRADO 12,70 (1/2")	960	- 0,110	916205	12,70
OU-47007	1018 CUA. ESTIRADO 50,80 (2")	1.204	- 0,190	138237	50,80
MJP-47224	1018 RED. ESTIRADO 25,40 (1")	2.006	0,051	138229	25,40
PAR-47152	1018 CUA. ESTIRADO 50,80 (2")	2.400	0,190	138236	50,80
PAR-47472	1018 CUA. ESTIRADO 38,10 (1 1/2")	834	- 0,160	916334	38,10
PAR-47472	1018 CUA. ESTIRADO 12,70 (1/2")	980	- 0,110	916205	12,70
PAR-47472	1018 CUA. ESTIRADO 50,80 (2")	1.204	- 0,190	138491	50,80
PAJ-47284	1018 CUA. ESTIRADO 6,35 (1/4")	1.000	- 0,090	915673	6,35
PAJ-47284	1018 CUA. ESTIRADO 12,70 (1/2")	1.218	- 0,110	916205	12,70
PAJ-47284	1018 CUA. ESTIRADO 50,80 (2")	1.198	- 0,190	138520	50,80
PAR-47490	1018 RED. ESTIRADO 25,00	4.960	- 0,051	138774	25,00
OU-47436	1018 RED. ESTIRADO 12,70 (1/2")	1.086	- 0,051	138832	12,70
VI-47383	1018 CUA. ESTIRADO 6,35 (1/4")	992	- 0,090	915673	6,35
VI-47383	1018 CUA. ESTIRADO 25,40 (1")	633	- 0,130	916070	25,40
CA-46398	1018 CUA. ESTIRADO 50,80 (2")	1.196	- 0,190	139048	50,80
PAR-47756	1018 CUA. ESTIRADO 25,40 (1")	1.020	- 0,130	916070	25,40
MJP-47531	1018 CUA. ESTIRADO 6,35 (1/4")	992	- 0,090	916198	6,35

Composición química de la colada / Chemical Analysis of Heat

MEDIDA Measurement	OF	COLADA Cast Nr.	% C	% Mn	% P	% S	% Si
12,70 0,00	916205	41079 S	0,161	0,802	0,006	0,023	0,268
50,80 0,00	138237	41336 C	0,150	0,710	0,012	0,012	0,160
25,40 0,00	138229	41198 G	0,160	0,630	0,007	0,010	0,136
50,80 0,00	138236	41336 C	0,150	0,710	0,012	0,012	0,160
38,10 0,00	916334	40753 C	0,190	0,790	0,019	0,017	0,200
12,70 0,00	916205	41079 S	0,161	0,802	0,006	0,023	0,268
50,80 0,00	138491	41336 C	0,150	0,710	0,012	0,012	0,160
6,35 0,00	915673	40073 G	0,150	0,770	0,007	0,026	0,235
12,70 0,00	916205	41079 S	0,161	0,802	0,006	0,023	0,268
50,80 0,00	138520	41336 C	0,150	0,710	0,012	0,012	0,160
25,00 0,00	138774	41198 G	0,160	0,630	0,007	0,010	0,136
12,70 0,00	138832	41218 GM	0,160	0,720	0,013	0,012	0,170
6,35 0,00	915673	40073 G	0,150	0,770	0,007	0,026	0,235
25,40 0,00	916070	40439 SR	0,180	0,760	0,017	0,028	0,220
50,80 0,00	139048	41336 C	0,150	0,710	0,012	0,012	0,160
25,40 0,00	916070	40439 SR	0,180	0,760	0,017	0,028	0,220
6,35 0,00	916198	40073 G	0,150	0,770	0,007	0,026	0,235

Características mecánicas / Mechanical properties



ARANA Y LUPARDO, 2
48490 UGAO-MIRAVALLS/VIZCAYA (SPAIN)
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Fax: 946480128
Email: calpradera@calibradospradera.es
www.calibradospradera.es

CERTIFICADO DE CALIDAD/QUALITY REPORT

De acuerdo a /Made according to:

EN 10204/DIN 50049

3.1

Nº CERTIFICADO / CERTIFICATE NR.: 46977

ALBARAN 46977
Delivery Note Nr.

CLIENTE LES ACIERS TRANSBEC (1997) I.TÉE
CUSTOMER

Norma : EN 10277

Productos Calibrados de acero. Condiciones técnicas de suministro.

Norm :

Bright steel products. Technical delivery conditions.

MEDIDA Measurement	OF	COLADA Cast Nr.	Resistencia Tens. strength N/mm ²	Lím.elástico Yield point 0.2% N/mm ²	Alargamiento Elongation Lo=50 mm.	Dureza HB Hardness HB	Estricción %
12,70	916205	41079 S	600,76	559,59	15,12	190,00	0,00
50,80	138237	41336 C	515,00	330,00	34,00	0,00	0,00
25,40	138229	41198 G	566,93	548,05	26,50	172,00	54,84
50,80	138236	41336 C	515,00	330,00	34,00	0,00	0,00
38,10	916334	40753 C	500,00	330,00	32,00	0,00	0,00
12,70	916205	41079 S	600,76	559,59	15,12	190,00	0,00
50,80	138491	41336 C	515,00	330,00	34,00	0,00	0,00
6,35	915673	40073 G	822,40	791,50	7,94	258,00	47,07
12,70	916205	41079 S	600,76	559,59	15,12	190,00	0,00
50,80	138520	41336 C	515,00	330,00	34,00	0,00	0,00
25,00	138774	41198 G	621,60	600,60	14,14	185,00	52,83
12,70	138832	41218 GM	555,00	0,00	30,60	0,00	0,00
6,35	915673	40073 G	822,40	791,50	7,94	258,00	47,07
25,40	916070	40439 SR	511,00	358,00	33,30	0,00	0,00
50,80	139048	41336 C	515,00	330,00	34,00	0,00	0,00
25,40	916070	40439 SR	511,00	358,00	33,30	0,00	0,00
6,35	916198	40073 G	822,40	791,50	7,94	258,00	47,07

Calidad Superficial

DESCRIPCIÓN Description	OF	Clase EN 10277-1

Observaciones: BARRAS DE ACEROE STIRADAS EN FRIO SIN ALFAR

DEPARTAMENTO DE CALIDAD: Certifica que el mencionado producto cumple con las especificaciones del pedido.
QUALITY DEPARTMENT: Certify that the product fulfils the order specifications.

Fecha/Date: 24/04/2017

Firmado: Susana Fernández
Directora de Calidad



Sistema de
Gestión
ISO 9001:2008
www.tuv.com
ID 1100300224



CERTIFICATE OF CONFORMANCE

AMERICAN BAR PRODUCTS
3600 Michigan Ave, Unit 1
East Chicago, IN
46312
p (215) 957-0500 - f (215) 957-6345

PRODUCT DATA

TAG NO. 70918
PO #: b 97699
HEAT: W26482
GAUGE 0.25
WIDTH 1.500
LENGTH 146
WEIGHT 1,590
PART # / IACH: v-731371
GRADE: C-1018 CF FLAT BAR

MILL DATA

HEAT: W26482
MILL COIL #: K7774831
MELT/ROLL MILL: US Steel
GRAIN SIZE PRACTICE: ALUMINUM KILLED
REDUCTION: 40 : 1
PO TO MILL: 42461
WORK ORDER #: 126974
SERIAL NO: 12357622
CUSTOMER PO#: 225889
Melt & Manufacture USA
OTHER PRODUCT DATA:

SHIPPING DATA

BILL/LADING #: 34348
B/L DATE: 11-Jan-17

Production data

OPERATOR ricky sanders
DATE 11-Jan-17
MACHINE LINE 3

CHEMISTRY

C	0.1900
Mn	0.7800
P	0.0060
S	0.0040
Cu	0.0100
Ni	0.0100
Cr	0.0400
Mo	0.0080
V	0.0010
Al	0.0340
Cb	na
N	0.0070
Si	0.0080

C-1018 COLD FINISHED FLAT BAR
MEETS PROPERTIES OF ASTM A29
MEETS PROPERTIES OF ASTM A108-13

GRAIN: ASTM E112, FINE GRAIN: 8/9, 128 GRAIN/IN² AT 100X MAGNIFICATION
REDUCTION RATIO 20/1 MIN. STRAND CASTING, NO WELDING OR WELD REPAIR

WE HEREBY CERTIFY THE ABOVE FIGURES ARE ACCURATELY STATED
THE ABOVE FIGURES ARE TRACEABLE IN OUR RECORDS BACK TO THE PRODUCER AND/OR
TO AN ACCREDITED TEST LABORATORY, ALL PHYSICALS MINIMUM

WE HEREBY CERTIFY THAT THIS PRODUCT DOES NOT CONTAIN LEAD, MERCURY, CADMIUM,
HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS (PBD), POLYBROMINATED DIPHENYL ETHERS (PBDE)

HEAT ANALYSIS IS FROM THE PACKING LIST RECEIVED FROM OUR RAW MATERIAL SUPPLIER

DFARS COMPLIANT

PRODUCED IN USA

QUALITY CONTROL



ORDAU SPECIAL STEEL NORTH AMERICA
5591 MORRILL ROAD
JACKSON, MICHIGAN 49101

8#d

CERTIFIED MATERIAL TEST REPORT

CERTIFIED ORIGIN NUMBER	CROSSCHECK PART NUMBER	SERIAL NUMBER	SOLE ORDER NUMBER	DATE
142324	1012462/4140EFVD	M52573 ✓	283416 101	11/05/13
			Daniel Cast	

Daniell Cast

ORDERED

SALES		ORDERED		ITEM		RND		LIBRARY	
4140		0 3/4"		✓		20'		2"	
ITEM 1012462 REV 1 DTD 03/05/12; A29/A29M-12; A322-07									
CHEMICAL ANALYSIS									
C	Mn	P	S	Si	Ni	Cr	Mo	Cu	Sn
0.40	0.85	0.010	0.024	0.25	0.12	0.96	0.18	0.17	0.008
V	Nb								
0.002	0.002								
GRAIN SIZE		SPECIFICATION ASTM E112				FINE GRAIN 5-8			
HARDENABILITY		SPECIFICATION ASTM A255/A304							
THEORETICAL									
J1	2	3	4	5	6	7	8	9	10
56	56	56	56	56	54	53	52	50	48
DI CALCULATION		SPECIFICATION CAT 1E0024							
REDUCTION RATIO		SPECIFICATION ITEM 1012462							
RATIO=		31.5 TO 1.0							
PAGE 1 We certify that these data are correct and in compliance with specified requirements. Gerald Monroe 3000 East Front Street Monroe, MI 48161 <i>Wendy J. Craig</i> Wendy J. Craig Quality Assurance Management									

PAGE 1

PAGE 1

We certify that these data are correct and in compliance with applicable laws and regulations.

Gerdaun Monroe Wendy J. Craig

Agency Representative

CONTINUED ON PAGE 2



GERDAU SPECIAL STEEL NORTH AMERICA
5591 MORRILL ROAD
JACKSON, MICHIGAN 49201

CERTIFIED MATERIAL TEST REPORT

CERTIFIED DATA NUMBER	CERTIFIED PART NUMBER	DATE ORDERED	DATE
142324	1012462/4140EVD	M52573	11/05/13
Daniel Cast			

SIZE	ITEM	LENGTH
0 3/4"	RND	20' 2"
ITEM 1012462 REV 1 DTD 03/05/12; A29/A29M-12; A322-07		

RESIDUAL MAX SPECIFICATION ITEM 1012462

P+S = 0.0340

RESIDUAL MIN SPECIFICATION ITEM 1012462

P+S = 0.0340

ASTM E381 MACRO ETCH SATISFACTORY: S1/R1/C1; MEETS SAE J422

S5/05 RATING (WORST FIELD):
** MATERIAL 100% MELTED AND MANUFACTURED IN THE U.S.A. BY THE ELECTRIC
ARC FURNACE AND CONTINUOUS CASTING METHOD. THE PRODUCT HAS NOT
BEEN REPAIRED BY WELDING AND THIS MATERIAL HAS NOT BEEN EXPOSED
TO MERCURY OR TO ANY OTHER METAL ALLOY THAT IS LIQUID AT AMBIENT
TEMPERATURES DURING PROCESSING OR WHILE IN OUR POSSESSION. TO ENSURE THAT
GERDAU MONITORS ALL INCOMING SCRAP AND ALL HEATS OF STEEL TO ENSURE THAT
PRODUCTS SHIPPED ARE FREE OF RADIOACTIVE MATERIAL.

PAGE 2 OF 2

We certify that these data are correct and in compliance with specified requirements.

Gerdau Monroe
3000 East Front Street
Monroe, MI 48161
Wendy J. Craig
Wendy J. Craig
Quality Manager - Engineering

Vulcan Threaded Products		JOB MATERIAL CERTIFICATION																																					
Vulcan Threaded Products, Inc. 10 Crest Creek Trail Prichard, AL 36124 Tel: (205) 820-5100 Fax: (205) 820-5150		Job Information Certified Date: 12/7/13 Ship To: 20601 Trilley Industrial Drive Taylor, MI 48180 Shipped Qty: 16442 lbs Line No: 1																																					
Job No: 344313 Containers: S7521276 S7525286 Customer Part No: 1012483-001 Customer PO No: 143436-753733 Order No: 201403 Note: WD 753733 A		Part Information Name: Hot Rod Bars Alloy Type: 4100 Alloy - Temper: 4140 - Applicable Specifications Specification ASTM A 193 B7/ASME SA 193 B7 Customer Specification																																					
Part No: HRB 4140 750x240 Q&T ES Part Group: HT TOLL Piece Weight: 30.059		Rev: 2012a Amend: Option																																					
Test Results See following pages for tests <table border="1"> <thead> <tr> <th colspan="12">Certified Chemical Analysis</th> </tr> <tr> <th>Test No.</th> <th>C</th> <th>Mn</th> <th>P</th> <th>S</th> <th>Si</th> <th>Cr</th> <th>Ni</th> <th>Mo</th> <th>Al</th> <th>Co</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>10111</td> <td>0.028</td> <td>0.15</td> <td>0.010</td> <td>0.010</td> <td>0.13</td> <td>0.02</td> <td>0.01</td> <td>0.02</td> <td>0.02</td> <td>0.02</td> <td>0.02</td> </tr> </tbody> </table>				Certified Chemical Analysis												Test No.	C	Mn	P	S	Si	Cr	Ni	Mo	Al	Co	Other	10111	0.028	0.15	0.010	0.010	0.13	0.02	0.01	0.02	0.02	0.02	0.02
Certified Chemical Analysis																																							
Test No.	C	Mn	P	S	Si	Cr	Ni	Mo	Al	Co	Other																												
10111	0.028	0.15	0.010	0.010	0.13	0.02	0.01	0.02	0.02	0.02	0.02																												
Notes: Material was manufactured, tested and inspected in accordance with Vulcan Threaded Products Inc. Quality Assurance Program and Manual Rev. A, dated 8/23/11. Processed material is Quenched and Tempered - Stress Free. No weld repair performed on the material. No Mercury used in the production of this material. Material Manufactured in the USA Induction Heat Treated Average Gauge Reading: <15 The microstructure consisted of 100% tempered martensite from the surface to the center. Autempering temp. > 1100 F for 1 hour Test specimens meet the ASTM A370-12a specifications																																							

cert 377069

Vulcan Threaded Products 10 Cross Creek Trail Pelham, AL 35124 Tel (205) 820-5100 Fax (205) 820-5150		JOB MATERIAL CERTIFICATION	
Job No: 344313 Containers: S7521276 S752298		Job Information Certified Date: 12/7/13	
Test Results			
Test No: 25756 Description: Quench & Temper Physicals Results:	Tensile (psi) 143,500	Yield 0.2% (psi) 128,700	Elongation (%) 17.4
Test No: 25757 Description: Quench & Temper Physicals Results:	Tensile (psi) 143,500	Yield 0.2% (psi) 128,700	Elongation (%) 17.4
Run Speed (FPM) 42.50		Quench Water Temp (F) 81.5	
Run Speed (FPM) 42.50		Quench Water Temp (F) 81.5	
Date 12/7/13		Date 12/7/13	
Signature <i>David Phair</i>		Signature Chris Arabi, David - Supervisor	
Date 12/7/13		Date 12/7/13	

Steel Bar Company Inspection Certificate 1626286

Customer	BOL	Ship Date	Customer PO	Item	Customer Item	Item Description
	207240	06-Mar-2017	BBC205	11144 rev 003	V016242	3/4 HR RD 414042MM 20ft2in SBO QTSP FG MST

All bundles listed below were produced using steel from Heat H52573 issued by GERDAU-MONROE and were completed from Eaton Steel Job 806632.

Chemistry	Description	Value	Units	Item	Description	Value	Units
C	Carbon	0.40000	PMGT	TEMPER TEMP P	Temper Temp in Fahrenheit	500 - 2500	DEGF
Mn	Manganese	0.85000	PMGT	AUSTEN TEMP P	Austenitize Temp in Fahrenheit	1600 - 1700	DEGF
P	Phosphorus	0.01000	PMGT	SR TEMP P	Stress Relief Temp in Fahrenheit	500 - 2500	DEGF
S	Sulfur	0.02400	PMGT	MAGNETISM-HT	Magnetism in Gauss	0 - 20	GN
Si	Silicon	0.25000	PMGT	TIME AT TEMP	Time at Temperature	Report	
Ni	Nickel	0.12000	PMGT	QUENCH MEDIA	Quench Media Requirements	P4H/O	
Cr	Chromium	0.96000	PMGT	STRESS FREE	Cert stress free	CERTIFIED	
Mo	Molybdenum	0.18000	PMGT	HT1410-420T	Quench & Temper	CONFORMS	
Al	Aluminum	0.03000	PMGT	Mill Processing	Description	Value	Units
Cu	Copper	0.17000	PMGT	MLT COUNTRY	Melted in Country	USA	
V	Vanadium	0.00200	PMGT	ROLLED COUNTRY	Rolled in Country	USA	
Co	Columbium	0.00200	PMGT	RED RATIO	Reduction Ratio	81.50	RED
N	Nitrogen	0.00000	PMGT	ASTM Standard	Description	Value	Units
P-S	Element Sum Limit	0.03400	PMGT	A193/193M-01	Grade B7	CONFORMS	
DI	Ideal Diameter	5.07000	IN	A134-90a-BC	ASTMA BC Tensile and Yield properties	CONFORMS	
Cleanliness	Description	Value	Units	Structure	Description	Value	Units
MACRO ETCH	Report macro etch results.			PERCENT TM	Percent Tempered Martensite	80 - 100	PCT
Grain Size	Description	Value	Units	MICROSTRUCTURE	Reported Microstructure	TM	
DIAMETER	Diameter	0.7420 - 0.7580	IN	Tag Number	Qty Units	Length	
Joining	Description	Value	Units	022-1921471	3305 LBS	20ft	

ASTM A304

J1	1/16 inch from Quenched End	56	HRC
J2	2/16 inch from Quenched End	56	HRC
J3	3/16 inch from Quenched End	56	HRC
J4	4/16 inch from Quenched End	56	HRC
J5	5/16 inch from Quenched End	56	HRC
J6	6/16 inch from Quenched End	56	HRC
J7	7/16 inch from Quenched End	54	HRC
J8	8/16 inch from Quenched End	53	HRC
J9	9/16 inch from Quenched End	52	HRC
J10	10/16 inch from Quenched End	50	HRC
J11	11/16 inch from Quenched End		HRC
J12	12/16 inch from Quenched End	48	HRC
J14	14/16 inch from Quenched End	46	HRC
J16	16/16 inch from Quenched End	44	HRC
J18	18/16 inch from Quenched End	43	HRC
J20	20/16 inch from Quenched End	42	HRC
J22	22/16 inch from Quenched End		HRC
J24	24/16 inch from Quenched End	40	HRC
J26	26/16 inch from Quenched End	38	HRC
J28	28/16 inch from Quenched End		HRC
J32	32/16 inch from Quenched End	36	HRC
Mechanical	Description	Value	Units
TENSILE PSI	Tensile Strength in PSI Units		PSI
YIELD PSI	Yield Strength in PSI Units		PSI
ELONGATION	Percent Elongation		PCT
REDUCTION	Percent Reduction in Area		PCT
BRINELL SURF	Brinell Surface	286.0	BHN

Bundle tags with Eaton Steel identifiers reference the steel grade, heat, purchase order number, part number, product description and weight. Tested and certified in accordance with Eaton Steel's Quality Manual OM-00001 / Rev 3 / 2/26/13.

We hereby certify the above to be in conformance, and a true copy of data represented in company records. This steel was not subject to weld repair or exposed to mercury while in the possession of Eaton Steel.

Created on 06-Mar-2017

Thomas Snodgrass Corporate Metallurgist

The document is property of Eaton Steel.
Data presented is valid without signature.

4936

48603

R4140-2H-20

TRA-1567
#9**CERTIFICATE OF TEST**
CERTIFICAT D'ESSAIS

Page 01 of 02

Certification Date
9-DEC-2016CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENTInvoice Number
S687318AC00001567
PART NUMBER/NUMÉRO DE PIÈCE

SOLD TO: ACIER OUELLETTE INC

SHIP TO:

ACIER OUELLETTE INC.

VENDU À:

EXPÉDIÉ À:

22 BOULEVARD J-F KENNEDY
ST JEROME QC J7Y 4B622 BOULEVARD J F KENNEDY
SAINT JEROME QC J7Y 4Description: 4140/4142 HR HT BAR STRESS FREE 269/321 BHN
2 RD X 20' R/L Line Total: 470 LB
HEAT: M56776 ITEM: 506433

Specifications:

ASTM A193 GR B7 14

ASTM A434 GR BC 06

ASME SA193 GR B7

ASTM A 322 13

CHEMICAL ANALYSIS

C	MN	P	S	SI	NI	CR	MO
0.42	0.89	0.011	0.033	0.26	0.15	0.90	0.18
CU	SN	AL	V	NB	N		
0.24	0.008	0.024	0.003	0.003	1.40		

RCPT: R966216

COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	132.0	144.0	23.0	57.0	279

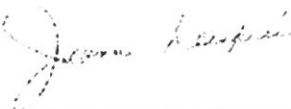
IDEAL DIAMETER : 5.34 IN GRAIN SIZE : 5 - 8

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du fabricant après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession/Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES


MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 02 of 02

Certification Date
9-DEC-2016

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

AC00001567
PART NUMBER/NUMÉRO DE PIÈCE

Invoice Number
S687318

SOLD TO:	ACIER OUELLETTE INC	SHIP TO:	ACIER OUELLETTE INC.
VENDU À:	22 BOULEVARD J-F KENNEDY	EXPÉDIÉ À:	22 BOULEVARD J F KENNEDY
	ST JEROME QC J7Y 4B6		SAINT JEROME QC J7Y 4

Description: 4140/4142 HR HT BAR STRESS FREE 269/321 BHN
2 RD X 20' R/L Line Total: 470 LB
HEAT: M56776 ITEM: 506433

VACUUM DEGASSED MATERIAL IS FREE FROM MERCURY CONTAMINATION
THERMAL TREATMENT: OK
TREATMENT TEMP F TIME(MIN MEDIA
AUST 1625 2.10
QUENCH 0 WATER
TEMPER 1400 2.1
QUENCHED @ 100 DEG F FOR 2.5 MIN
MACRO: OK
MICRO: OK

COMMENTS
red ratio 11.5 to 1.0
melted and mfg in the USA

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

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Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

10

FAI 381

MILL TEST

SHIP TO		ACIER OUELLETTE		SO DESCRIPTION		1" X 3/8" FLAT BAR	
CUSTOMER PO		101434		CUSTOMER PART NUMBER		DT02222	
DIE NUMBER		S 2222		DATE OF SHIPMENT		Nov/03/2016	
ALLOY		6061		TEMPER		T6	
SALES MAN		HOUSE ACCOUNTS		ORDER NO.		198958 - 1	
MANIFEST NO.		359787		MADE IN CANADA			
CERTIFICATION		MILL TEST ASTM B221-14					

Mechanical Properties

Lot	Alloy	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation	Hardness Rockwell E	Conductivity
A.11	6061	Oct/27/2016	43.50	39.30	18.40	88.2, 88.5, 87.9	

Chemical Composition

Cast Number	Lot	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	B	Zr	Bi	Pb	Sn	Sr	Co	Al	Other
384191	A.11	6061	0.6	0.18	0.2	0.03	0.86	0.07	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0

We certify that the following extrusions have been quality inspected/tested and conforms to required dimensional and temper specifications.



David Natale
Quality Control Manager

FAL 12112 over the #11

Test de dureté Rockwell Rockwell Hardness Test

46185

Client / Customer : LES ACIERS TRANSBEC (1997) LTEE.

Adresse / Address : 4054 BOUL. LE CORBUSIER # 201
LAVAL, QC
H7L5R2

commande Sapa / Sapa order # : 6050261

bon de commande / Purchase order # : OU-46056

de matrice / Die # : MS 9442 Description : 1 1/2"x 1/2" FLAT BAR

Alliage & trempage / Alloy & temper : 6061 T6 Longueur / Length : 6097 mm

Contrôle / Control # : 68674-2

Coulée / Cast # : 66789 ✓

Dureté Rockwell E / Min. requis / Max. permis /
Rockwell E hardness : 95 HRE Min. required : 88 HRE Max. permitted : 100 HRE

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0.20 - 0.60	0.35 Max	0.10 Max	0.10 Max	0.45 - 0.90	0.10 Max	0.10 Max	0.10 Max
6005	0.60 - 0.90	0.35 Max	0.10 Max	0.10 Max	0.40 - 0.60	0.10 Max	0.10 Max	0.10 Max
6005A	0.66 - 0.74	0.14 - 0.28	0.08 - 0.16	0.18 - 0.26	0.46 - 0.54	0.03 Max	0.05 Max	0.05 Max
6061	0.40 - 0.80	0.70 Max	0.15 - 0.40	0.15 Max	0.80 - 1.20	0.04 - 0.35	0.25 Max	0.15 Max
6351	0.7 - 1.3	0.5 Max	0.10 Max	0.40 - 0.80	0.40 - 0.60	---	0.20 Max	0.20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre, date : 2016-08-01
Yours truly,



Gilles Pélletier
Technicien de la qualité
Quality technician



Service Center Metals

5850 Quality Way
Prince George, VA 23875

Can Do.



CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

2P #12

OUR ORDER NUMBER	ITEM
925726	4

MANIFEST NUMBER	DIE NUMBER	DATE OF SHIPMENT	CERTIFICATION
338176	MRB0479	7/20/2017	ASTM-B221-14 StencilCont
CUSTOMER PO	ALLOY / TEMPER	SALESPERSON	SPECIFICATION
C74707	6061-T6511	D. Schroeder (Canada)	AMS-QQA-200/8 Rev-A
CUSTOMER PART NUMBER	DESCRIPTION		
MRB0479	MQRB 1.000x5.000		

Quantity Certified 1,140 lbs 16 pcs

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

This product is RoHS-2, REACH, and DFARS compliant.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

Mechanical Properties

Tests	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
3	R391404	5/27/17	min 50.10 max 50.90	min 45.20 max 46.50	min 15.60 max 17.00

201708529

Print Date: 7/20/2017

Calvin J. Wiggins

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Rev. 9/2/16



Service Center Metals

5850 Quality Way
Prince George, VA 23875

Can Do.



CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

OUR ORDER NUMBER	ITEM
925726	4

MANIFEST NUMBER	DIE NUMBER	DATE OF SHIPMENT	CERTIFICATION
338176	MRB0479	7/20/2017	ASTM-B221-14 StencilCont
CUSTOMER PO	ALLOY / TEMPER	SALESPERSON	SPECIFICATION
C74707	6061-T6511	D. Schroeder (Canada)	AMS-QQA-200/8 Rev-A
CUSTOMER PART NUMBER	DESCRIPTION		
MRB0479	MQRB 1.000x5.000		

Quantity Certified 1,140 lbs 16pcs

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T6511 also meet the requirements of 6061-T6.

This product is RoHS-2, REACH, and DFARS compliant.

All aluminum products supplied by Service Center Metals, LLC contain no functional mercury. Neither mercury nor its compounds are used in the manufacture of aluminum products at our facility. Furthermore, aluminum products supplied by Service Center Metals have not, to the best of our knowledge, contacted any source of mercury.

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Others		Melt Source:
												Each	Total	
001J170406Y	201708529	6061	0.76	0.40	0.33	0.10	0.92	0.09	0.05	0.04	97.32	0.05	0.15	United States of America
001J170524A	201708529	6061	0.74	0.37	0.33	0.11	0.87	0.11	0.06	0.03	97.38	0.05	0.15	United States of America
05141704	201708529	6061	0.74	0.40	0.33	0.10	0.92	0.08	0.07	0.02	97.34	0.05	0.15	United States of America
05171701	201708529	6061	0.76	0.36	0.30	0.11	0.86	0.09	0.07	0.03	97.42	0.05	0.15	United States of America

SCM is ISO 9001-2015 certified

Print Date: 7/20/2017

SCM products are melted and extruded in the USA

Calvin J. Wiggins, Director of Quality & Technical Services

Rev 9/8/16

#2457

4A1-1143-12

ACIER OUELLETTE INC P.O. - AC7730 S.O. - 394920

48392

#13

Material Test ReportManifest: 704227Ticket:
1658808

Our Order: 876180 - 1 Cust P.O.: 787365
Die: ES04036 Part: 5131-8954
Alloy Temper: 6061 T6511 Description: 1.250 x 3.000 RECT. BAR
Print Date: 12/12/16

Chemical Composition

CastNum	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Maximum	
									OtherEach	OtherTotal
34827	0.57	0.24	0.19	0.08	0.85	0.07	0.02	0.01	0.05	0.15

Mechanical Properties

Strength ksi

Sample ID	Cast #	Lot #	Test Date	Ultimate Tensile	Yield 2% offset	Elongation 2" gage length
66813	34827	A11	12/6/16	48.37	44.45	17.5

Applicable Specifications: ASTM B221-14 AMS-QQ-A200/8A

Country of Origin: ONTARIO, CANADA

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment.

Eric Hotte - Tensile Testing

Authorized:


Evan Eng, Quality Assurance Manager

#14

Certificate of Mill Test Results

LES ACIERS OUELLETTE INC.
BARRE RONDE ALUMINIUM 6061-T6511
5.00" DIA X 141.0000"
PART NO.

PO/Ref OU-77076
Nous certifions que le document reproduit ici est
une copie conforme du rapport fourni par le
fournisseur du matériel ou les données résultent

de l'analyse faite par un laboratoire qualifié.
SIGNE PAR: LUCY TRUGLIO

9 May 16
Pg 1/1



Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
5205 KAISER DRIVE
KALAMAZOO, MI 49048

CUSTOMER PO NUMBER: VIM-635658-3		CUSTOMER PART NUMBER: R37/STK		PRODUCT DESCRIPTION: KAISERSELECT PRECISION ROD 5.000 +/-0.017	
KAISER ORDER NUMBER: 6007370	LINE ITEM: 003	SHIP DATE: 04/19/2016		KAISER LOT NUMBER: Z00020290	ALLOY: 6061
WEIGHT SHIPPED: 1108.000 LB	QUANTITY: 4.000 PCS	BL NUMBER: 615429		DIAM/CAF/THICKNS: 5.000	TEMPER: T6511B
SHIP TO: THYSSENKRUPP CANADA 4700 BOIS FRANC ST LAURENT, PQ H4S 1A7 CANADA			SOLD TO: THYSSENKRUPP CANADA 4700 BOIS FRANC ST LAURENT, PQ H4S 1A7 CANADA		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00020290	0001	C001	51.8	47.6	15.6	RE 94	N/A	N/A
Z00020290	0001	C002	51.3	47.2	16.0	RE 91	N/A	N/A
Z00020290	0002	C001	58.2	54.7	15.0	RE 94	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
106110	.72	.29	.26	.11	.93	.10	.19	.02	.00	.00	.00	.01	.04

Applicable Requirements:

PER ASTM-B221-14, STENCILED ASME-SB221 2009 SECT II PER AMS-CQ-A-200/8A UNS# A95061
MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL
PROPERTIES AS FOLLOWS: UTS = 42.0 KSI MIN YIELD = 38.0 KSI MIN ELONGATION = 10.0% MIN

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY
OF ITS COMPOUNDS ARE UTILITIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been
inspected and tested and found in conformance with applicable specifications forming a part of the
description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on
Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.
Aimee L. Macnowski, Quality & Technology Manager

Aimee L. Macnowski

Plant Serial: 00227885
Kaiser Order Number: 6007370
Line Item: 003

#15
TRA 904
5144

47345

Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : **LES ACIERS TRANSBEC (1997) LTEE.**

Adresse / Address : **4054 BOUL. LE CORBUSIER # 201
LAVAL, QC
H7L5R2**

commande Sapa / Sapa order # : **7010442**

bon de commande / Purchase order # : **OU-47042**

de matrice / Die # : **MS 16001**

Description : **2.25" DIA. ROD**

Alliage & trempage / Alloy & temper : **6061 T6**

Longueur / Length : **6097 mm**

Contrôle / Control # : **83103-1**

Coulée / Cast # : **68252** ✓

Dureté Rockwell E /
Rockwell E hardness : **96 HRE**

Min. requis /
Min. required : **88 HRE**

Max. permis /
Max. permitted : **100 HRE**

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0.20 - 0.60	0.35 Max	0.10 Max	0.10 Max	0.45 - 0.90	0.10 Max	0.10 Max	0.10 Max
6005	0.60 - 0.90	0.35 Max	0.10 Max	0.10 Max	0.40 - 0.60	0.10 Max	0.10 Max	0.10 Max
6005A	0.66 - 0.74	0.14 - 0.28	0.08 - 0.16	0.18 - 0.26	0.46 - 0.54	0.03 Max	0.05 Max	0.05 Max
6061	0.40 - 0.80	0.70 Max	0.15 - 0.40	0.15 Max	0.80 - 1.20	0.04 - 0.35	0.25 Max	0.15 Max
6351	0.7 - 1.3	0.5 Max	0.10 Max	0.40 - 0.80	0.40 - 0.80	—	0.20 Max	0.20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,
Yours truly,

date : **2017-02-08**



Gilles Pelletier
Technicien de la qualité
Quality technician

00110200
ACIER OULETTE DIV-VALLEYFIELD
BARRE RONDE A CROISSANCE
1.50 DIA X 14.100
PART NO.

DACT
PO Ref A0009030

Notre contenu que le document reproduit est
une copie conforme du rapport fourni par le
fournisseur du matériel ou les données résultant

RVU 4050
Certificate of Mill Test Results
75 Sep 17
Pg 1/3



North American Stainless Canada Inc.
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 300262 3

Customer: 007205 001

Date: 6/06/2017 Page: 1

Steel: 303

Finish: ST

Corrosion:

Red Ratio: 32.0 :1

NAS Order: IN 0248251 02

Your Order: VIM641730

PRODUCT DESCRIPTION:

Round Bar, Annealed, Smooth Turned, Cold Finished
UNS 30300, ASTM A582/12 EN 10204 3.1, ASTM A484/15
AMS 5640V TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900P MIN

REMARKS:

COMPLIES W/REQUIREMENTS OF DPAF 252.225-7009 EU DIRECTIVE
2011/65/EU. ROHS. EAP-AOD-CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BI6169 7		1.5000		1.330	144.00	2	1	

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323
Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CO %	CR %	CU %	FE %	MO %	N %	NI %	P %
3338	US	.0329	.1085	17.0530	.3225	1.8665	.3105	.0466	8.5265	.0275
S % SI %										
.3145 .4000										

MECHANICAL PROPERTIES

Product Id	1 d o i c r	HB	.2YS KSI	UTS KSI	RA %	Elong % 4D
BI6169 7	R I	152.0	44.00	87.00	50.00	46.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

Nous certifions que le document représenté ci-dessus
 est une copie conforme du rapport d'analyse et de
 l'analyseur du matériel ou les données à l'analyseur.

ne l'analyse faire par un laboratoire accrédité
 SIGNED PAR:



North American Stainless Canada Inc.
 740 Imperial Road North
 Guelph, ON N1K1Z3
 Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
 Ghent, KY 41045-9615
 (502) 347-6000

Certificate: 300262 4

Customer: 007205 001

Date: 6/06/2017 Page: 1

Steel: 303

Finish: 3T

Corrosion:

Red Ratio: 32.0 :1

Your Order: VIN641730 NAS Order: IN 0248251 02

PRODUCT DESCRIPTION:

Round Bar, Annealed, Smooth Turned, Cold Finished
 UNS 30300, ASTM A582/12 EN 10204 3.1, ASTM A484/15
 AMS 5640V TYPE 1, QQS-764B CONDITION A
 SOLUTION ANNEAL TEMP 1900F MIN

REMARKS:

COMPLIES W/REQUIREMENTS OF DEAR 252.225-7009 EU DIRECTIVE
 2011/65/EU, ROHS, EAP+AOD+CC. NO WELD REPAIR. MELTED AND MFG
 IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid # Diameter	Size	Weight	Length-----	Mark	Pieces	Commodity Code
BI6178 7	1.5000		880	164.00	4	1	

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/14a

NAS Heat	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
333B	US	.0329	.1085	17.0530	.3225	1.8665	.3105	.0466	8.5365	.0273
S %	SI %									

MECHANICAL PROPERTIES

Product Id	1 d o i c r	HB	No.	.2YS	UTS	RA	Elong
BI6178 7	R L	152.0		44.00	87.00	58.00	46.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
 Dept. Mgr.

YRTS LAB

**North American Stainless Canada Inc.**
740 Imperial Road North
Guelph, ON N1K1Z3
Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 300262 5
Customer: 007205 001
Your Order: VIM641730
NAS Order: IN 0248251 02

Date: 6/06/2017 Page: 1
Steel: 303
Finish: ST
Corrosion:
Red Ratio: 32.0 : 1

PRODUCT DESCRIPTION:
Round Bar, Annealed, Smooth Turned, Cold Finished
UNS 30300, ASTM A582/12 EN 10204 3.1, ASTM A484/15
AMS 5640V TYPE 1, QQS-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN

REMARKS:
COMPLIES W/REQUIREMENTS OF DPAR 252.225-7009 EU DIRECTIVE
2011/65/EU ROHS. EAF-AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	Length	Max	Pieces	Commodity Code
BI6178 8		1.5000		881	144.00	3	1	

CHEMICAL ANALYSIS CM(Country of Met) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323 Chemical Analysis per ASTM A751/14a									
NAS Heat	CH	C %	CO %	CR %	CU %	MO %	NI %	P %	
333B	US	.0329	.1085	17.0530	.3225	1.8665	.3105	.0466	8.5265 .0275
S % SI %									
.3145 .4000									

MECHANICAL PROPERTIES									
Product Id	1 d		.2YS		UTS		RA		Elong
	o i	HB	KSI	No.	KSI	%	%	%	% 4D
BI6178 8	R L	152.0	44.00		87.00	58.00			46.00

CO.49626

PO 903/ JJ

CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 01 of 01

Certification Date
9-MAR-2007CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENTInvoice Number
T232578ROSS
PART NUMBER/NUMÉRO DE PIÈCEDescription: 1018 CF BAR ASTM A108
2-1/2 X 6 FLATS 6'0" (72.0") REMNANT
HEAT: 207H175 ITEM: 503180

Line Total: 306 LB

Specifications:
ASTM A108 03

ASTM A29 04

CHEMICAL ANALYSIS

C	MN	P	S	SI	NI	CR	MO
0.16	0.67	0.01	0.02	0.24	0.08	0.07	0.017
CU	AL	V					
0.23	0.045	0.001					

RCPT: R692775

MILL: NIAGARA LASALLE CORPORATION

COUNTRY OF ORIGIN: USA

GRAIN SIZE: 5 - 8

STRAND CAST MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL

COMMENTS

GRAIN FINE (5 8)
SOURCE/METLED ISG STEELTON (USA)
CAST BLOOM
RED. RATIO 22.5:1

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrits du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOSEE DUBE

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

2 1/2 X 6"

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M3045189A
DATE: SEP 18 2017

PO / BATCH NO.: PO37671/M138486

MATERIAL CERT REC'D: yes
QUANTITY RECEIVED: 6458PT
QUANTITY INSPECTED: 6458PT
QUANTITY REJECTED: 0

THICKNESS ORDERED: .050
THICKNESS RECEIVED: .050
SHEET SIZE ORDERED: 4X8
SHEET SIZE RECEIVED: 4X8

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	ASTM A240
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	HT # 064V
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>5</u>	SIGNED OFF BY: _____		
DATE: <u>SEP 18 2017</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET
ANNEALED

SPECIFICATION:

DAS
5
9-89
MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
OR ASTM A240
OR ASME SA240

FINISH:

FINISH
UNPOLISHED No. 1
UNPOLISHED No. 2D
UNPOLISHED No. 2B
POLISHED No. 3
POLISHED No. 4
BUFFED No. 6
BUFFED No. 7
BUFFED No. 8
DART M-NUMBER
IDENTIFIER
1P
2D
3P
4P
6P
7P
8P

PART NUMBER:

M304S TT GA #P
GA

WHERE "TT" = GAUGE THICKNESS
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.09375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.228
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.3125	0.301 - 0.325

RELEASED

2015 FEB 04

ECN 15-322

REV.	DESCRIPTION	DATE
D	ADDED GAUGES 0-7.	AJS 15.01.06
C	DEFINED FINISH OPTION (ZN C8) AND EXAMPLE OF MATERIAL PIN WITH FINISH OTHER THAN 2B (ZN B5).	MB 12.09.20
B	REFORMAT DWG. ADD ASTM/ASME SPECS (ZN D8-1), ADD GAUGE REF (C8-1), REF PAR 08-020A	CP 09.06.01
A	NEW ISSUE	DS 01.09.24
DESIGN	DS	BY
DRAWN	AJS	DATE
CHECKED		
MFG. APPR.		
APPROVED		
DE APPR.		
DATE	15.01.06	
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWING NO. M304S		
TITLE 304/316 SS SHEET		
SHEET 1 OF 1		
SCALE NTS		
COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON OR ENTITY WITHOUT PERMISSION FROM DART AEROSPACE LTD		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO37671

Purchase Order Date 9/5/2017

PO Print Date 9/5/2017

Page Number 1 of 8

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

ACIER OUELLETTE INC.
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED
SEP 05 2017

Contact Name

Vendor Phone 800 667 4248

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	M303R1.500	M303R1.500	9/11/2017 Yes 9/11/2017		12.00 f	\$19.55	\$234.60
	MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE						
					12.2 12 1/2		
						Line Total:	\$234.60
2	M303R0.750	303 Round Bar 0.750	9/11/2017 Yes 9/11/2017		12.00 f	\$4.43	\$53.16
	MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE						
					12.2		
						Line Total:	\$53.16

PO Instructions: QUOTATION SOU0055250

Note:

9/5/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO37671

Purchase Order Date 9/5/2017

PO Print Date 9/5/2017

Page Number 2 of 8

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

ACIER OUELLETTE INC.
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

Contact Name

Vendor Phone 800 667 4248

Ship To Contact

Ship To Phone

Ship Via:

Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB FCA - (Free Carrier)

3 M304R0.375 304 ROUND BAR 0.375 9/11/2017
Yes
9/11/2017

MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276

(NOTE: AISI 303 NOT ACCEPTABLE)

12.00 \$1.03 \$12.41

12.3

SPR-9-11.

4 M304S18GA 304/316 .050 Sheet 9/11/2017
Yes
9/11/2017

PURCHASE MATERIAL: AISI 304/316 SS SHEET
ANNEALED
SPECIFICATION: MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
ORASTMA240
OR ASME SA240

Line Total: \$12.41

64.00
sf
B/O

\$5.36 \$342.72

SPR-9-12.

Line Total: \$342.72

PO Instructions: QUOTATION SOU0055250

Note:

9/5/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO37671

Purchase Order Date 9/5/2017

PO Print Date 9/5/2017

Page Number 3 of 8

Order From :

ACIER OUELLETTE INC.
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

VC-CAM002

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

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Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

5	M304S20GA	304/316 .040 Sheet	9/11/2017	64.00	\$3.91	\$250.14
			Yes	sf		
			9/11/2017			

PURCHASE MATERIAL: AISI 304/316 SS SHEET
ANNEALED
SPECIFICATION: MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
ORASTMA240
OR ASME SA240

2x.
SP 17-9-11

Line Total: \$250.14

6	M1018R0.625	M1018R0.625	9/11/2017	20.00	\$1.04	\$20.79
			Yes	f		
			9/11/2017			

MATERIAL: AISI 1018-1025 ROUND BAR AS PER
MIL-S-7097 OR ASTM A108

18.9.

Line Total: \$20.79

7	M1018R0.500	1018-1025 round bar .500	9/11/2017	20.00	\$0.67	\$13.35
			Yes	f		
			9/11/2017			

MATERIAL: AISI 1018-1025 ROUND BAR AS PER
MIL-S-7097 OR ASTM A108

18.9

SP 17-9-11

PO Instructions: QUOTATION SOU0055250

Note:

9/5/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO37671**

Purchase Order Date 9/5/2017

PO Print Date 9/5/2017

Page Number 4 of 8

Order From :

ACIER OUELLETTE INC.
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

VC-CAM002

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 800 667 4248

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

				Line Total:	\$13.35
8	M1018B0.250x1.500	1010-1025 Steel Bar .250 x 1.500	9/11/2017 Yes 9/11/2017	12.00	\$1.86 \$22.33
MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR CSA G40-21, 38W/44W/50W/60W/70W					
				Line Total:	\$22.33
9	M1018B2.500X6.000	1010-1025 Steel Bar 2.500 x 6.000	9/11/2017 Yes 9/11/2017	3.00	\$165.32 \$495.95
MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570 OR CSA G40-21, 38W/44W/50W/60W/70W					
				Line Total:	\$495.95
10	M4140HR0.750	4140 round bar .750	9/11/2017 Yes 9/11/2017	3.00	\$4.67 \$14.01
SAW CUT CHARGES INCLUDED IN PRICE MATERIAL: AISI 4140 H ROUND BAR PER AISI 4140 OR ASTM A304-02/-A-434-BC/-A193-03 GRADE-B7/-A29-03/-A332-91 OR UNS # G41400					

PO Instructions: QUOTATION SOU0055250

Note:

9/5/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO37671**

Purchase Order Date 9/5/2017

PO Print Date 9/5/2017

Page Number 5 of 8

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

ACIER OUELLETTE INC.
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

800 667 4248

Ship To Contact

Ship To Phone

Ship Via:

Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Total: \$14.01

11 M4140HR2.00 ✓

M4140HR2.00 ✓

9/11/2017 FN

3.00 ✓

\$19.50

\$58.49

Yes

f

9/11/2017

SAW CUT CHARGES INCLUDED IN PRICE

MATERIAL: AISI 4140 H ROUND BAR PER

AISI 4140 OR ASTM A304-02/-A-434-BC/-A193-03 GRADE-B7/-A29-03/-A332-91 OR UNS # G41400

Line Total: \$58.49

12 M6061T6B0.375X01.000

6061T6 BAR .375 x 1.00 ✓

9/11/2017

20.00 ✓

\$1.20

\$23.94

Yes

f

9/11/2017

MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR

AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116

OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR

ASTM B221

887-9-11

Line Total: \$23.94

PO Instructions: QUOTATION SOU0055250

Note:

9/5/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO37671**

Purchase Order Date 9/5/2017

PO Print Date 9/5/2017

Page Number 6 of 8

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

ACIER OUELLETTE INC.
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 800 667 4248

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB FCA - (Free Carrier)

13	M6061T6B0.500X1.500	6061T6 BAR 0.500 X 1.500	9/11/2017	20.00	\$2.39	\$47.87
			Yes	f		
			9/11/2017			

MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR
ASTM B221

Line Total: \$47.87

14	M6061T6B1.000X5.000	6061T6 BAR 1.000 X 5.000	9/11/2017	12.00	\$17.97	\$215.66
			Yes	f		
			9/11/2017			

MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR
ASTM B221

Line Total: \$215.66

PO Instructions: QUOTATION SOU0055250

Note:

9/5/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO37671

Purchase Order Date 9/5/2017

PO Print Date 9/5/2017

Page Number 7 of 8

Order From :

VC-CAM002

Ship To : DART AEROSPACE LTD

ACIER OUELLETTE INC.
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 800 667 4248

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB FCA - (Free Carrier)

15	M6061T6B1.250X3.000	6061T6 BAR 1.250 X 3.000	9/11/2017	12.00	\$13.48	\$161.76
		Yes	f			
		9/11/2017				

MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM BAR
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR
ASTM B221

Line Total: \$161.76

16	M6061T6R5.000	6061-T6 Round Bar 5.000"	9/11/2017	3.00	\$71.06	\$213.18
		Yes	f			
		9/11/2017				

SAW CUT CHARGES INCLUDED IN PRICE
MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM ROUND BAR
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR
ASTM B221

Line Total: \$213.18

PO Instructions: QUOTATION SOU0055250

Note:

9/5/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO37671**

Purchase Order Date 9/5/2017

PO Print Date 9/5/2017

Page Number 8 of 8

Order From : VC-CAM002
ACIER OUELLETTE INC.
935 BOUL. DU HAVRE
VALLEYFIELD, QC J6S 5L1
CA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 800 667 4248

Ship To Contact
Ship To Phone
Ship Via: Yours ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

17	M6061T6R2.250	6061-T6 Round Bar 2.250"	9/11/2017 Yes 9/11/2017	2.00 f	\$14.36	\$28.72
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SAW CUT CHARGES INCLUDED IN PRICE
MATERIAL: 6061-T6/T6510/T6511/T62 ALUMINUM ROUND BAR
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR
ASTM B221

Line Total: \$28.72

18	71401-45	PROCUREMENT QUALITY CLAUSESQ	9/11/2017 No 9/11/2017	1.00	\$0.00	\$0.00
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Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

Line Total: \$0.00

PO Total: \$2,209.08

PO Instructions: QUOTATION SOU0055250

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 9/5/2017

**ACIER OUELLETTE INC.**

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0055250

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

P10: 37671

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Customer N°

CLI0001056

Date

2017/08/30

Revision N°

0

Prices valid until

2017/09/06

Your Order N°**Processed by**

BERNARD

Salesman

FRED

Carrier

OUELLE SDV

Credit Terms

Net 30 Days

Page

2

Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
COUPE A LA SCIE SCIE 1 1 X 3'		1.00	UN	1.00		5.00			5.00
ROUND 4140 HEAT TREAT 2 RANDOM R4140-2H-V 4937	32.04	3.00	PI_\$CLB	3.00	PI	17.83			53.49
COUPE A LA SCIE SCIE 1 1 X 3'		1.00	UN	1.00		5.00			5.00
FLAT ALU 3/8 X 1 6061-T6 (20) FAL-381-20 2610 1 X 20'	9.00	20.00	PI_\$CLB	1.00	UN	23.94			23.94
FLAT ALU 1/2 X 1 1/2 6061-T6 (20) FAL-12112-20 2465 1 X 20' ✓	18.00	20.00	PI_\$CLB	1.00	UN	47.87			47.87
FLAT ALU 1/2 X 3 6061-T6 (20) FAL-123-20 2485 1 X 20' 2.75 not a 20'	36.20	20.00	PI_\$CLB	1.00	UN	96.27			96.27
FLAT ALU 1 X 5 6061-T6 (12) FAL-15-12 2533 1 X 12' 2-3 DAYS	70.49	12.00	PI_\$CLB	1.00	UN	215.66			215.66
FLAT ALU 1 1/4 X 3 6061-T6 (12) FAL-1143-12 2457 1 X 12'	52.87	12.00	PI_\$CLB	1.00	UN	161.76			161.76
FLAT ALU 2 X 3 6061-T6 (12) FAL-23-12 2559 1 X 12'	84.67	12.00	PI_\$CLB	1.00	UN	242.12			242.12
ROUND ALU 5 6061-T6 (12) RAL-5-12 5164	69.12	3.00	PI_\$CLB	0.25	UN	812.72			203.18

préavis en fonction de l'évolution des prix de l'acier sur le marché.
Cette offre est sujette et conditionnelle à l'approbation du crédit.

Date :

Next Page...

**ACIER OUELLETTE INC.**

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation**SOU0055250****Billed to**

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Customer N°

CLI0001056

Date

2017/08/30

Revision N°

0

Prices valid until

2017/09/06

Your Order N°**Processed by**

BERNARD

Salesman

FRED

Carrier

OUELLE SDV

Credit Terms

Net 30 Days

Page

1

Product N° and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
SS303 ROUND BAR 1 1/2" N 1 X 12' R/L 2-3 DAYS	0.00	12.00	PI	12.00	UN	19.55			234.60
ROUND SS 3/4 303 RANDOM RSS-34303-V 5761 1 X 12' R/L	18.02	12.00	PI_\$CLB	12.00	PI	4.43			53.16
ROUND SS 3/8 304 (12R) RSS-38-12 5763 1 X 12' R/L	4.51	12.00	PI_\$CLB	12.00	PI	1.03			12.41
SHEET SS 18G SS304-2B (4 X 8) FESS-18G483042B 3425 2 X 4' X 8'	134.40	64.00	PI2_\$CLB	2.00	UN	171.36			342.72
SHEET SS 20G SS304-2B (4 X 8) FESS-20G483042B 3430 2 X 4' X 8'	100.48	64.00	PI2_\$CLB	2.00	UN	125.07			250.14
ROUND CR 5/8 1018 (20R) RCR-58-20 5350 1 X 20' r/l	20.80	20.00	PI_\$CLB	20.00	PI	1.04			20.79
ROUND CR 1/2 1018 (20R) RCR-12-20 5266 1 X 20' r/l	13.36	20.00	PI_\$CLB	20.00	PI	0.67			13.35
FLAT CR 1/4 X 1 1/2 1018 (12R) FCR-14112-12 2731 1 X 12' r/l	15.30	12.00	PI_\$CLB	12.00	PI	1.86			22.33
FLAT CR 2 1/2" X 6" N 1 X 3' 2-3 DAYS	0.00	1.00	UN	1.00	UN	495.95			495.95
ROUND 4140 HEAT TREAT 3/4 (20R) R4140-34H-20 4948	4.51	3.00	PI_\$CLB	3.00	PI	3.00			9.01

préavis en fonction de l'évolution des prix de l'acier sur le marché.
Cette offre est sujette et conditionnelle à l'approbation du crédit.

Date :

Next Page...

**ACIER OUELLETTE INC.**

935, Boul. du H vre
Salaberry de Valleyfield (Qu bec) J6S 5L1
T l.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation**SOU0055250****Billed to**

DART AEROSPACE LTD
1270 , ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE T l.: 613-632-5200

Customer N  CLI0001056
Date 2017/08/30
Revision N  0
Prices valid until 2017/09/06
Your Order N 
Processed by BERNARD
Salesman FRED
Carrier OUELLE SDV
Credit Terms Net 30 Days
Page 3

Product N� and description	Weight	Qty	U/M	Qty	U/M	Price	Pcs Nb	Price	Amount
COUPE A LA SCIE SCIE 1 1 X 3'		1.00	UN	1.00		10.00			10.00
ROUND ALU 4 6061-T6 (20) RAL-4-20 5162	44.29	3.00	PI_\$CLB	0.15	UN	856.13			128.42
COUPE A LA SCIE SCIE 1 1 X 3'		1.00	UN	1.00		10.00			10.00
ROUND ALU 2 1/4 6061-T6 RANDOM RAL-214-V 5145	9.34	2.00	PI_\$CLB	2.00	PI	11.86			23.72
COUPE A LA SCIE SCIE 1 1 X 2'		1.00	UN	1.00		5.00			5.00
SURCHARGE ENERGETIQUE FRAIS_ENERGETIQUE			\$						3.95

Total Weight (Lbs) 737.40

Important

This offer is based on availability and current pricing conditions that may be revised upon
pr vision of l' volution des prix de l'acier sur le march .
This offer is subject to conditions of credit approval.
Approved and Accepted by : _____ Date : _____

Sub-total 2 689.84

TVH-13 - 349.68

Total (\$CAD) 3 039.52